

Regulatory Antenna Information

Project Name : Neon
Host System : Notebook PC
Antenna Vendor : Hitachi Cable,Ltd

Samsung Electronics Co., Ltd.

Antenna Information

Antenna Assembly Specifications

Antenna assembly overview: Peak Gain

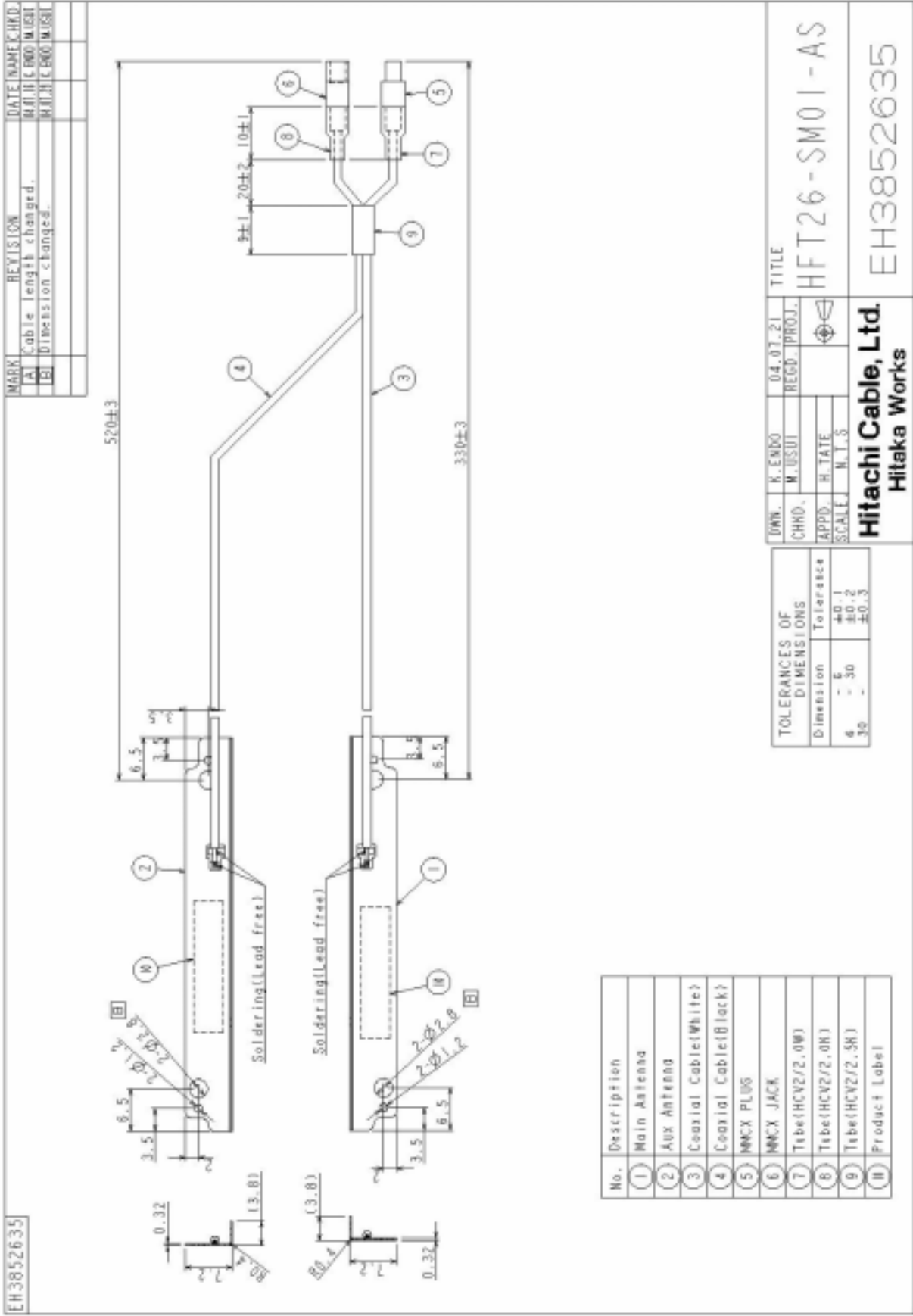
Designator	Manufacture	Antenna type	Cable Assembly Info.	Peak Gain W/ Cable loss (dBi)
(P/N :HFT26-SM01-Main) Main antenna	Hitachi Cable	Monopole	(P/N: HFT26-SM01-Main) 50 ohm Coaxial. length: 550mm diameter: 1.37mm Connector: U.FL	2400-2500MHz 1.84 dBi (peak)
				5150-5350MHz 1.70 dBi (peak)
				5470-5725MHz 1.92 dBi (peak)
				5725-5850MHz 1.11 dBi (peak)
(P/N:HFT26-SM01-Aux) Auxiliary antenna	Hitachi Cable	Monopole	(P/N: HFT26-SM01-Aux) 50 ohm Coaxial. length: 740 mm diameter: 1.37mm Connector: U.FL	2400-2500MHz 1.63 dBi (peak)
				5150-5350MHz 0.78 dBi (peak)
				5470-5725MHz 0.52 dBi (peak)
				5725-5850MHz 0.30 dBi (peak)

Cable assembly overview: Cable loss

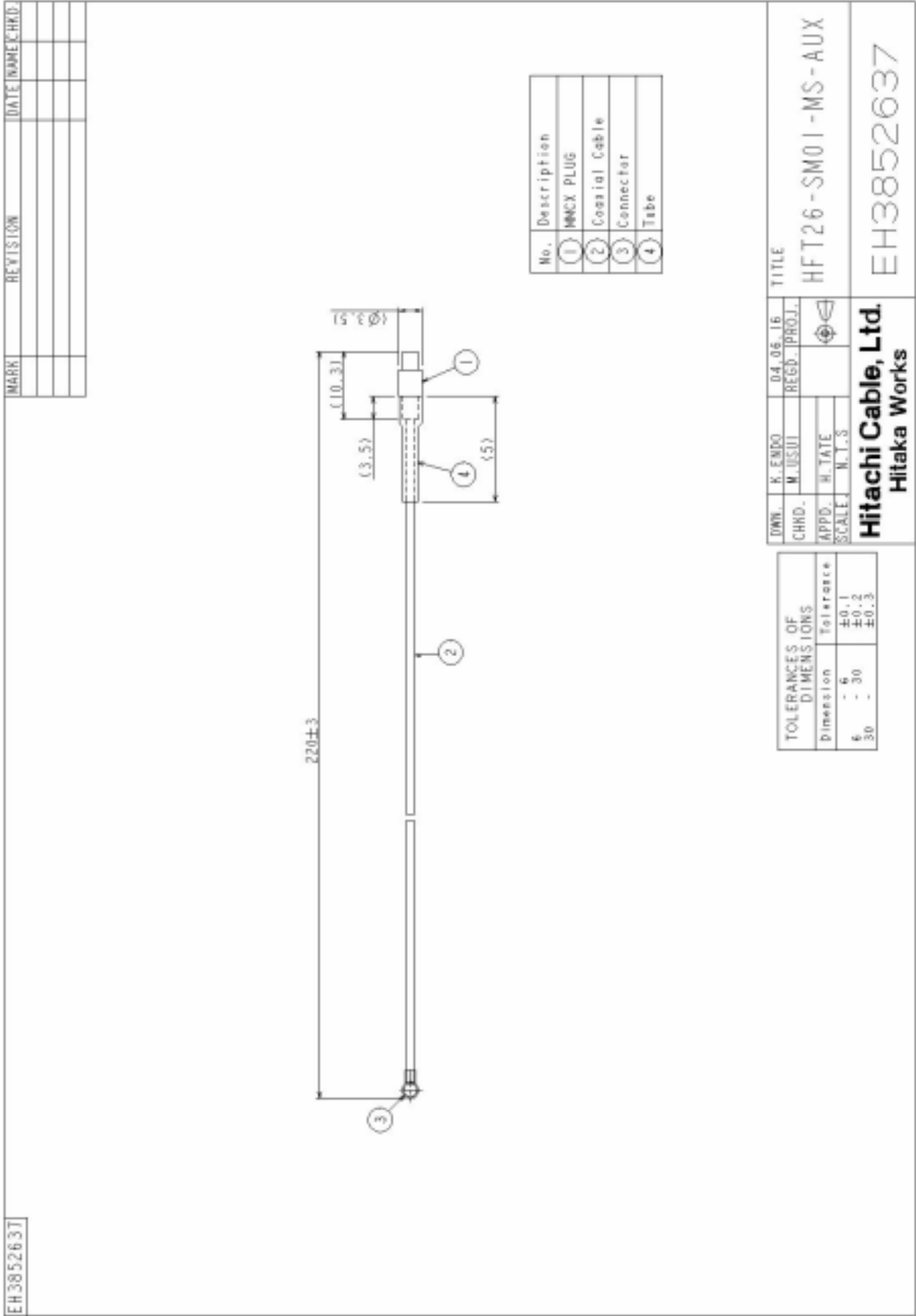
Designator	Manufacture	Cable type and length	VSWR	Cable Loss (dBi)
(P/N : HFT26-SM01-Main) For use with the Main antenna	Hitachi Cable	(P/N: HFT26-SM01-Main) 50 ohm Coaxial. length: 550mm diameter: 1.37mm Connector: U.FL	2400-2500MHz 1.3max	2400-2500MHz 1.43dB (peak)
			5150-5350MHz 1.5max	5150-5350MHz 2.39dB (peak)
			5470-5725MHz 1.5max	5470-5725MHz 2.39dB (peak)
			5725-5850MHz 1.5max	5725-5850MHz 2.39dB (peak)
(P/N: HFT26-SM01-Aux) For use with the Auxiliary antenna	Hitachi Cable	(P/N: HFT26-SM01-Aux) 50 ohm Coaxial. length: 740 mm diameter: 1.37mm Connector: U.FL	2400-2500MHz 1.3max	2400-2500MHz 1.93dB (peak)
			5150-5350MHz 1.5max	5150-5350MHz 3.23dB (peak)
			5470-5725MHz 1.5max	5470-5725MHz 3.23dB (peak)
			5725-5850MHz 1.5max	5725-5850MHz 3.23dB (peak)

Mechanical drawings of antenna

Main and Aux Antenna



EH3852636	MARK _____ REVISION _____ DATE (NAME) (HKD) _____ _____ _____ _____		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>①</td> <td>MMCX JACK</td> </tr> <tr> <td>②</td> <td>Coaxial Cable</td> </tr> <tr> <td>③</td> <td>Connector</td> </tr> <tr> <td>④</td> <td>Tube</td> </tr> </tbody> </table>	No.	Description	①	MMCX JACK	②	Coaxial Cable	③	Connector	④	Tube	
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		TOLERANCES OF DIMENSIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Dimension</th> <th>Tolerance</th> </tr> </thead> <tbody> <tr> <td>- 6</td> <td>±0.1</td> </tr> <tr> <td>6 - 30</td> <td>±0.2</td> </tr> <tr> <td>30 -</td> <td>±0.3</td> </tr> </tbody> </table>		Dimension	Tolerance	- 6	±0.1	6 - 30	±0.2	30 -	±0.3			
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		Hitachi Cable, Ltd. Hitaka Works		EH3852636										



Radiation characteristic of antenna Loaded (In Host System)

1. Main antenna Radiation pattern and gain

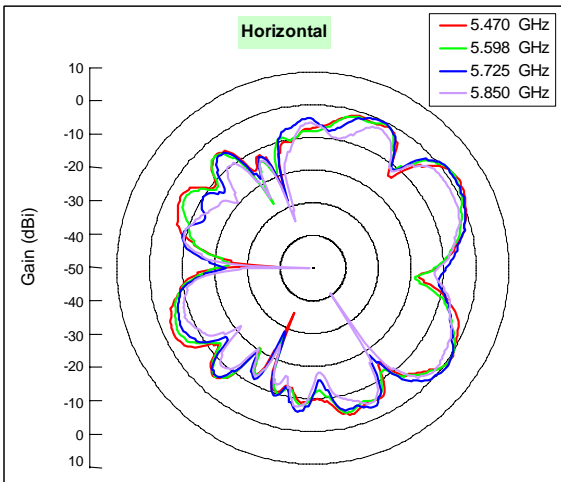
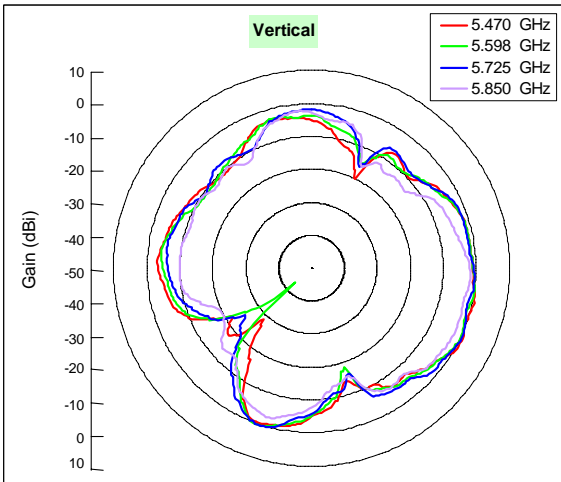
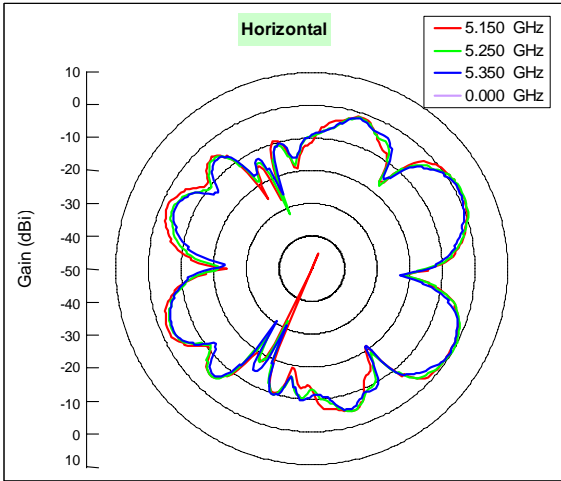
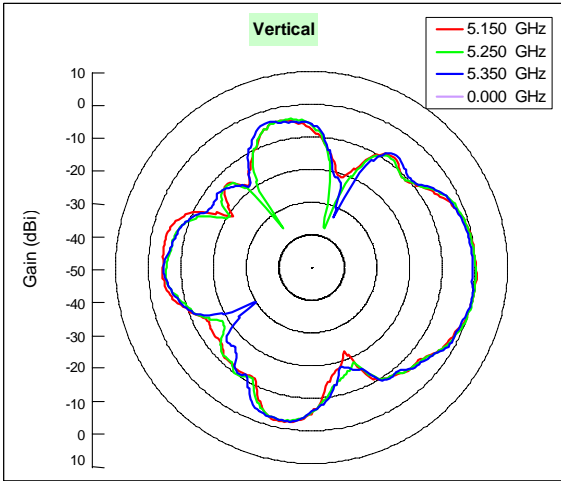
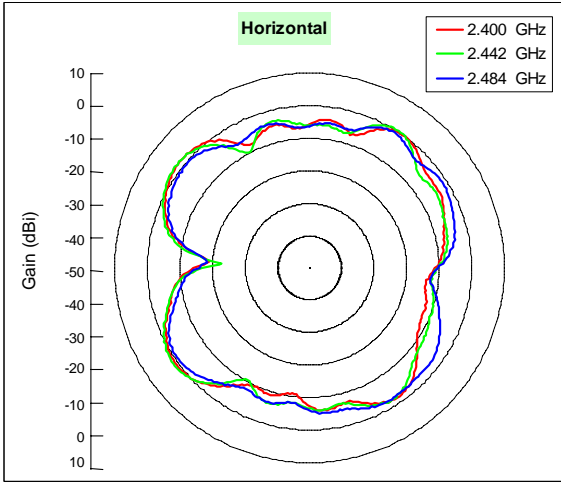
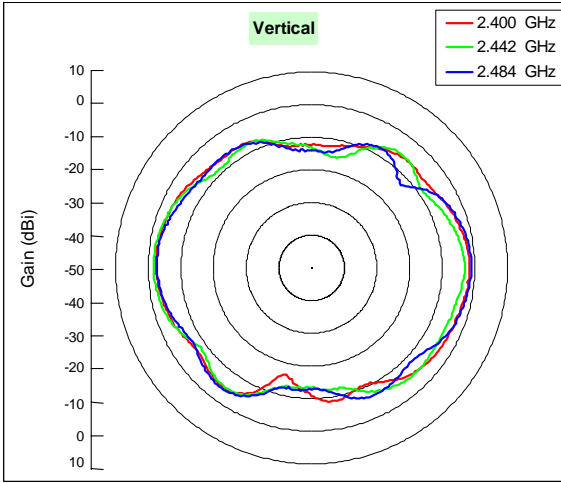


Table 1. Peak gain (dBi) summary

Frequency (MHz)	Horizontal (dBi) peak	Vertical (dBi) peak	peak (dBi)
2400	1.63	-1.51	1.63
2442	1.84	-3.07	1.84
2484	-0.30	-1.04	-0.30
5150	1.41	0.51	1.41
5250	1.70	0.38	1.70
5350	1.00	0.10	1.00
5470	1.92	0.57	1.92
5600	1.55	0.17	1.55
5725	1.11	0.27	1.11
5850	-1.63	-1.77	-1.63

2. Aux antenna Radiation pattern and gain

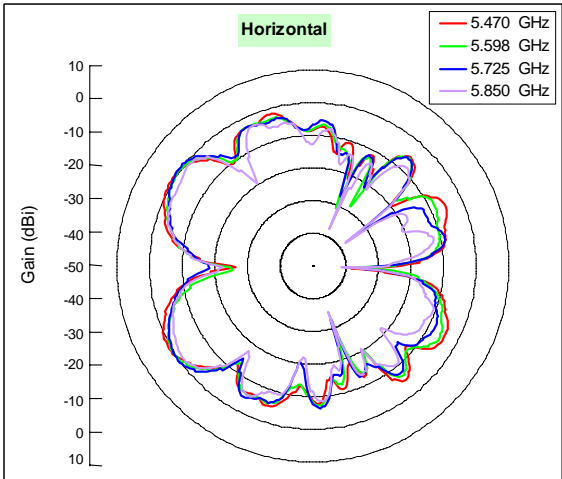
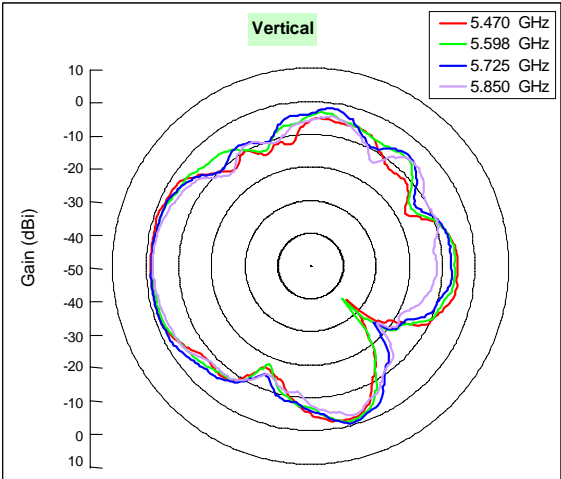
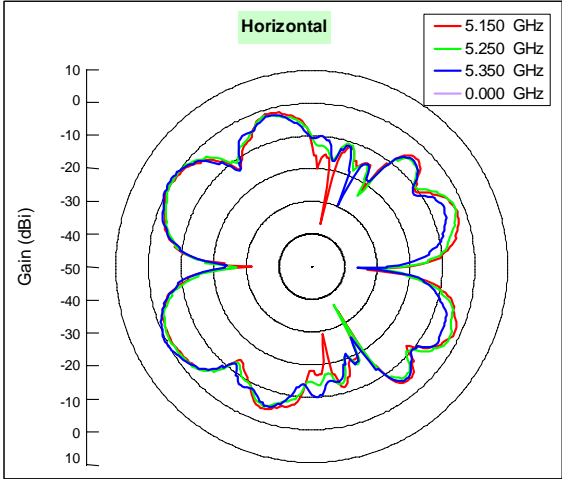
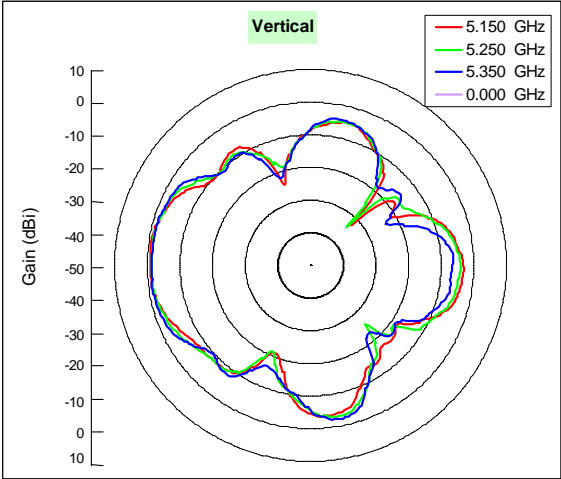
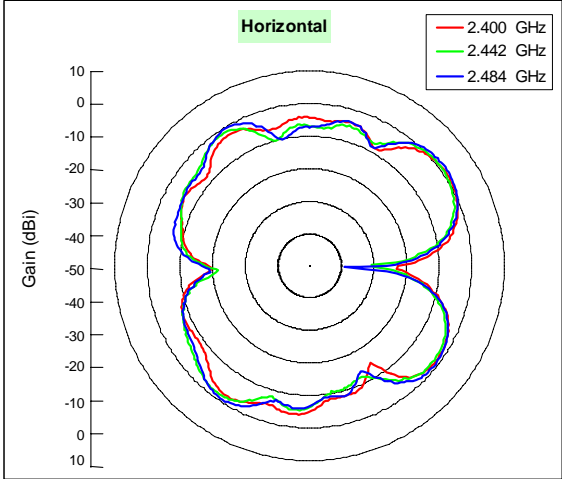
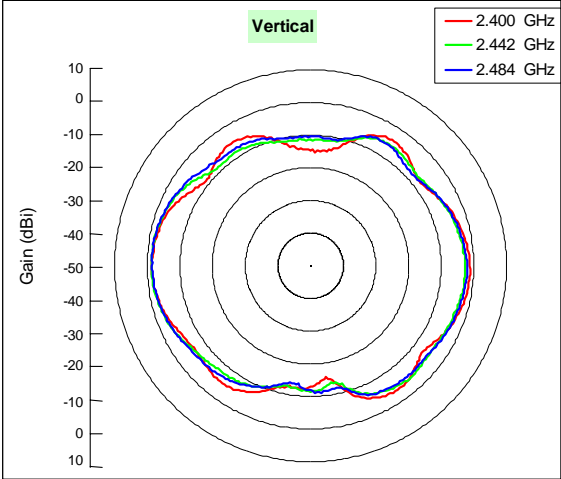


Table 2. Peak gain (dBi) summary

Frequency (MHz)	Horizontal (dBi) peak	Vertical (dBi) peak	peak (dBi)
2400	0.87	-1.09	0.87
2442	0.64	-2.56	0.64
2484	1.63	-2.08	1.63
5150	-0.03	-0.71	-0.03
5250	0.05	-1.08	0.05
5350	0.78	-1.08	0.78
5470	0.52	-1.31	0.52
5600	0.05	-1.50	0.05
5725	0.30	-0.95	0.30
5850	-1.37	-2.13	-1.37

Host PC Information

Host System : Notebook PC
(Project and Model Name : Neon)

Antenna location : Top of the LCD of
Antenna : Main = Right, Aux = Left

Photographs of the antenna location in the Neon



Antenna location



Main Antenna



Auxiliary Antenna

Full antenna picture